

Update on SRF Materials Effort at Fermilab – ILC meeting 12/07/05

P. Bauer, C. Boffo, C. Cooper

other participants (at Fnal):

M. Battistoni, D. Burk, L. Elementi, K. Ewald, M. Foley, E. Hahn, D. Hess, D. Hicks, F. McConologue, W. Muranyi, R. Rabehl

Collaborating universities:

**ASC/University of Wisconsin
NUCAPT/Northwestern university
NSCL/Michigan State university**

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Eddy Current Scanning

- Report TD-05-050, ECS of 94 1.3 GHz sheets for AES
- 42 of remaining 150 discs scanned, projected end of job: 01/15
- Visit of ATI-WC
- Meetings on involvement of QC-group



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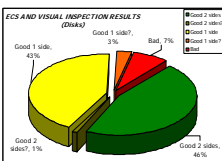
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Results of AES series



Anodization

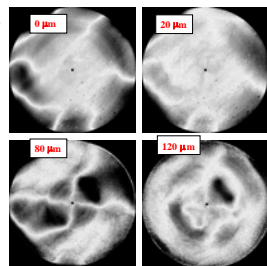


Summary Table

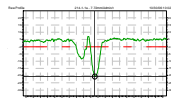
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Pit Study



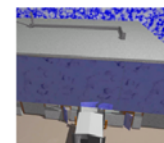
3R Measurement System

- Pressure Vessel Safety Review passed
- DP-18 Review in progress – meeting w. assoc. dir. next week
- Design of top plate and insert ongoing (R. Rabehl)

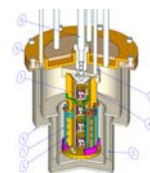
Fermilab

DOCUMENTS in SUPPORT of
THE DP-18 REVIEW of the
IB3-SRF MATERIALS LAB

P. Bauer, C. Boffo, J. Garvey, D. Hicks, G. Lorenz, F. McConologue, T. Peterson, R. Rabehl, R. Ruthe, E. Sood, Y. Terechikine



Fermilab-TD
10/21/2005
TD-05-049



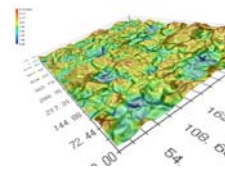
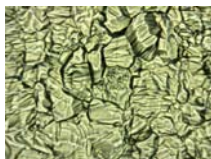
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Surface Analysis – new Keyence Microscope

- installed
- technician trained
- in regular use now



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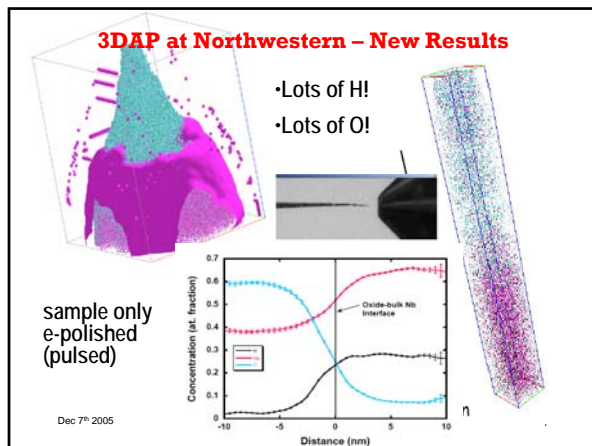
Update on University Collaborations

- ASC/UW – investigation of SC properties of SRF Nb large grain samples in process
DOE white paper
2006 PO-I issued
- Northwestern University Nb 3DAP measurements
2006 MoU extension signed
tip development
new Results - next
- MSU – Kapitza conductance, thermal conductivity
first samples in process
- MSU – mechanical properties
first samples shipped

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2 SBIRs submitted recently

- Roark Engineering (C. Cooper)
Flow forming of Nb tubes
- Panner Sales Comp. (C. Boffo)
Automatic portable weldprep pre-etching system (BCP)

The figure shows two diagrams. The top diagram is a schematic of a flow forming process, showing a tube being formed by a mandrel and a die. The bottom diagram is a cross-section of a weld, showing the weld metal and the base metal.

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